

REMARKS

This paper is responsive to the Office Action mailed March 10, 2006. In the Office Action, Claims 13-14, 16-17, 19-20, 22-24, 29-30, and 33 were rejected as being anticipated by Gautier (US 6,618,858). Claims 15, 18, 21, 25-28, 31-32 and 34 were rejected as being unpatentable over Gautier in view of Ellis (US 2005/0028208). Claim 35 was rejected as being unpatentable over Gautier and Ellis in view of Zoller (US 6,941,291).

Applicants have amended independent Claims 13, 16, and 19. Additionally, dependent Claims 15, 18, 21, 26, and 34 have been amended. Claims 1-12 were canceled in a previous response. Claims 13-35 are thus presented for reconsideration and allowance.

In view of the amendments presented herein, applicants respectfully traverse the claim rejections set forth in the Office Action. At a minimum, Gautier fails to teach the subject matter recited in independent Claims 13, 16 and 19. The disclosures of Ellis and Zoller (alone or combined) fail to overcome the deficiencies in Gautier. Applicants request reconsideration and allowance of the application.

Before discussing in detail the reasons why applicants believe the claims to be allowable, applicants provide the following description of embodiments disclosed in the present application.

Summary of Disclosed Embodiments

The present application describes various embodiments of a user model that, in one embodiment, can be implemented in an interactive television system. An interactive television system may include a number of elements including a headend to which a plurality access devices (e.g., set top boxes or STBs) may be connected. A number of individuals may live in a house in which multiple access devices may be located.

In one aspect, the present application organizes the elements of an interactive television system into a hierarchy of software "objects" that represent the various households, access

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devices, and users in the households that make up the interactive television system. As depicted in FIGURE 5, a "household object" 202 may be associated with an account in the television system. The household object further contains "access device objects" and "user objects" that represent the access devices and users, respectively, in the household. See, e.g., page 18, lines 5-6 of the present application.

The use of "objects" is known in computer programming for organizing executable code and data, but has heretofore not been applied outside of computer programming. The present application presents a novel application of an object-oriented approach to organizing households, access devices, and users in an interactive multimedia environment.

Once established, an "object" can be instantiated in an electronic system and provide functionality to the electronic system. Multiple instances of an object can be set up to represent multiple entities. Thus, a household object can contain multiple access device objects and multiple user objects, wherein each instance of an object has a configuration of attributes and data. See, e.g., FIGURE 7, and in particular, for a user object, see FIGURE 8.

A user object may be established to represent a user in the system and the object, once established, may be instantiated in the multiple access devices in the household. The instances of the user object in the access devices all share a common origin and thus have the same organization of attributes and data. This aspect of the present invention allows a user to create or reconfigure a user object by logging on to an authorized user object at any one of the access devices of the household. The other access devices (if any) in the household may automatically receive the new or reconfigured user object information without further action by the user. This aspect advantageously allows a single operation to configure and/or reconfigure all of the access devices in a household with the user object information of a new or revised user object.

In another aspect of the present application, when a user adds a new access device to the household, the new access device may receive the user object information of user objects already existing in the household, without requiring further action by the user. In one embodiment, this exchange of user object information between instances of a user object may be coordinated by a server that stores the configuration information of each household object and the user objects that it contains. This server, for example, may be operated by a multiple service operator (MSO) or other service provider. Alternatively, the server may be at a broadcast center, e.g., for a satellite broadcast system.

In another aspect, the configuration of a user object may be updated by a user in connection with a revision information file. When a user changes the configuration of a user object via an access device, the access device sends the updated configuration information to the server. In one embodiment, the server receives the updated user object information and stores the updated information in a file corresponding to the user object. Additionally, the server creates an update entry that includes a ticket number and a bit vector corresponding to the updated information. The ticket number tracks the version of the configuration information received from the user.

Patentability of Claims 13-14, 16-17, 19-20, 22-24, 29-30, and 33 Over Gautier

Turning now to the claims, Gautier has been cited as anticipating the subject matter set forth in Claims 13-14, 16-17, 19-20, 22-24, 29-30, and 33. Applicants respectfully disagree. However, to advance the prosecution of the present application, applicants have amended certain of the claims.

In particular, amended Claim 13 recites a method that includes, in part, “organizing the plurality of access devices according to an object-oriented model in which software objects are instantiated in an object hierarchy, the object hierarchy including household objects that contain

user objects.” As further defined in Claim 13, “said household objects further contain[] configuration information associated with households in which the plurality of access devices are located, wherein each household is represented by a household object” and “said user objects contain[] configuration information associated with respective users of the plurality of access devices and, when instantiated, each user object defines interaction of a respective user with an access device in which the user object is instantiated.” Applicant submits that none of the foregoing is taught or suggested by Gautier.

Additionally, Claim 13 recites a feature wherein “if the access device is not the first access device of the household, then instantiating in the access device at least one user object from the household object representing the household, wherein the user object, when instantiated, inherits the configuration information of the user object as recorded with the household object.” Applicant further submits that this feature is not disclosed by Gautier.

At best, Gautier teaches a system in which users set up viewer accounts, and where, as part of the process, the users are assigned a network identifier (NID) and a user identifier (UID). The UID/NID assignments do not define a household, much less constitute a “household object,” as claimed. Additionally, different users in a household establishing viewer accounts on an STB are given different UIDs and NIDs.

The elements set forth in Claim 13 distinguish the claim over the prior art and should be allowed.

Independent Claims 16 and 19 recite a configuration system and machine-readable medium, respectively, that include elements similar to those found in Claim 13. For reasons similar to those discussed above, Claims 16 and 19 are also allowable over Gautier.

Claims 14, 17 and 20 are patentable, both for their dependence on Claims 13, 16, and 19, and for the additional subject matter they recite. Likewise, dependent Claims 22-24, 29-30, and 33 are also patentable over Gautier.

Patentability of Claims 15, 18, 21, 25-28, 31-32 and 34 Over Gautier and Ellis

A combination of Gautier and Ellis has been cited as rendering unpatentable the subject matter set forth in Claims 15, 18, 21, 25-28, 31-32 and 34. Applicants respectfully disagree. As each of these claims depends from an allowable base claim, these claims are each in allowable condition.

Claims 15, 18, 21, 25-28, 31-32 and 34 are also patentable for the additional subject matter they recite. For instance, the subject matter in Claims 15, 18, and 21, namely “providing to the access device a ticket number corresponding to the configuration information received from the user, which ticket number tracks the version of the configuration information received from the user,” is not taught by Ellis (or Gautier, as conceded in the Office Action).

As another example, Claim 26 recites the method of Claim 13, “further comprising, when the access device is not the first access device of the household, instantiating in the access device all of the user objects from the household object representing the household.” This also is not taught by Ellis or Gautier.

Claim 34 was amended to correct the claim dependency to ensure proper antecedent basis for all the elements recited in the claim.

In view of the above, Claims 15, 18, 21, 25-28, 31-32 and 34 should be allowed.

Patentability of Claim 35 Over Gautier, Ellis and Zoller

A combination of Gautier, Ellis and Zoller was cited as rendering unpatentable the subject matter set forth in Claim 35. Applicants respectfully disagree for reasons similar to those described above. Claim 35 depends from allowable Claim 15 and ultimately from Claim 13.

See, e.g., the reasoning provided above explaining the patentability of Claims 15 and 13. Neither Ellis nor Gautier (nor Zoller, for that matter) disclose anything that suggests an object-oriented model.

Claim 35 is also in patentable condition for the additional subject matter it recites. Ellis, Gautier, and Zoller (alone or combined) fail to disclose anything suggesting an element of “receiving the ticket number from the access device and, in response thereto, providing to the access device a different ticket number with updated configuration information for the at least one user object.”

Claim 35 should be therefore allowed.

CONCLUSION

An object-oriented approach to organizing households and users in an interactive television environment is truly novel and non-obvious in view of the prior art. For at least the foregoing reasons, Claims 13-35 in the present application should be allowed. The claims are clearly and patentably distinguished over the prior art. Applicants respectfully request reconsideration and allowance of Claims 13-35 at an early date.

Respectfully submitted,

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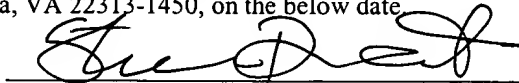


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